### **PATENT COOPERATION TREATY**

## **PCT**

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### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference WOP0314	FOR FURTHER A	CTION	See Form PCT/IPEA/416			
International application No. International filing date PCT/GB2005/000297 27.01.2005		(day/month/year)	Priority date (day/month/ye 05.02.2004	ar)		
International Patent Classification (IPC) or national classification and IPC INV. H02P5/05 H02P6/14						
Applicant DYSON TECHNOLOGY LIMITED et al.						
<ol> <li>This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</li> </ol>						
2. This REPORT consists of a total	-					
3. This report is also accompanied l	•	-				
a. $\square$ sent to the applicant and t				i		
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).						
☐ sheets which superse beyond the disclosure Supplemental Box.	de earlier sheets, but w in the international app	rhich this Authority cons plication as filed, as indi	siders contain an amendme cated in item 4 of Box No. I	nt that goes and the		
b.   (sent to the International E sequence listing and/or tal Relating to Sequence List	oles related thereto, in e	electronic form only, as	er of electronic carrier(s)) , indicated in the Supplemen ructions).	containing a ital Box		
4. This report contains indications re	elating to the following i	tems:				
☐ Box No. I Basis of the rep	ort					
☐ Box No. II Priority						
	ent of opinion with rega	ard to novelty, inventive	step and industrial applicat	oility		
☐ Box No. IV Lack of unity of		, , , , , , , , , , , , , , , , , , ,	Trop and made and approach	, <b>y</b>		
⊠ Box No. V Reasoned state applicability; cit	ement under Article 35(2 ations and explanations	2) with regard to novelty supporting such stater	v, inventive step or industria nent	I		
☐ Box No. VI Certain docume	ents cited					
☐ Box No. VII Certain defects	in the international app	lication				
☐ Box No. VIII Certain observa	ations on the internation	al application		:		
Date of submission of the demand		Date of completion of th	is report			
16.08.2005		02.05.2006				
Name and mailing address of the international preliminary examining authority:  European Patent Office		Authorized officer		Jacob es Patantamp.		
D-80298 Munich Tel. +49 89 2399 - 0 Tx: 5236 Fax: +49 89 2399 - 4465	56 epmu d	Frapporti, M Telephone No. +49 89 2	399-2243	Standing on the Confession of		

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/GB2005/000297

	Box No. I Basis of the report				
1.	With regard to the language, this report is based on				
	☑ the international application in the language in which it was filed				
	of a translation furnished for ☐ international search (und ☐ publication of the internat	onal application into , which is the language the purposes of: er Rules 12.3(a) and 23.1(b)) tional application (under Rule 12.4(a)) examination (under Rules 55.2(a) and/or 55.3(a))			
2.	With regard to the <b>elements</b> * of the have been furnished to the receive report as "originally filed" and are	the international application, this report is based on (replacement sheets which ving Office in response to an invitation under Article 14 are referred to in this e not annexed to this report):			
	Description, Pages				
	1-12	as originally filed			
	Claims, Numbers				
	1-24	as originally filed			
	Drawings, Sheets				
	1/10-10/10	as originally filed			
		5 · ···, ···			
	☐ a sequence listing and/or any	y related table(s) - see Supplemental Box Relating to Sequence Listing			
3.	☐ The amendments have result ☐ the description, pages ☐ the claims, Nos. ☐ the drawings, sheets/figs ☐ the sequence listing (speciary table(s) related to sec	cify):			
4.	had not been made, since they he Supplemental Box (Rule 70.2(c))  the description, pages the claims, Nos. the drawings, sheets/figs the sequence listing (specially any table(s) related to sec	<i>cify)</i> : quence listing <i>(specify)</i> :			
	* If item 4 applies, so	me or all of these sheets may be marked "superseded."			

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/GB2005/000297

	Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability				
١.	Th ob	he questions whether the claimed invention appears to be novel, to involve an inventive step (to be non- bvious), or to be industrially applicable have not been examined in respect of:			
		the entire international application,			
	$\boxtimes$	claims Nos. 21-24			
	bed	cause:			
		the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):			
		the description, claims or drawings (indicate particular elements below) or said claims Nos. are so unclear that no meaningful opinion could be formed (specify):			
		the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (specify).			
		no international search report has been established for the said claims Nos. 21-24			
		a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:			
		☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.			
		furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.			
		pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13 <i>ter</i> .1(a) or (b) and 13 <i>ter</i> .2.			
		a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-bis of the Administrative Instructions, and such tables were not available to the International Preliminary Examining Authority in a form and manner acceptable to it.			
		the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.			
		See separate sheet for further details			

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/GB2005/000297

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

3 4

4-6,10,14

No:

Claims

1-3,7-9,11-13,15-20

Inventive step (IS)

Yes: Claims

No: Claims

Industrial applicability (IA)

Yes: Claims

1-20

1-20

No: Claims

2. Citations and explanations (Rule 70.7):

see separate sheet

### Re Item III.

1) Claims 21-24 do not clearly define the matter for which protection is sought (Article 6 and Rule 6.2(a) PCT).

#### Re Item V.

- 2) Reference is made to the following document:
  - D1: EP 1 292 007 A (TOYOTA JIDOSHA KABUSHIKI KAISHA; DENSO CORPORATION) 12 March 2003 (2003-03-12)
  - D2: US-A-5 796 226 (OOKAWA ET AL) 18 August 1998 (1998-08-18)
  - D3: EP-A-0 748 038 (KOLLMORGEN CORPORATION) 11 December 1996 (1996-12-11)
  - D4: GB 970 003 A (UNITED KINGDOM ATOMIC ENERGY AUTHORITY) 16 September 1964 (1964-09-16)
- 3) The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses a control map (cf. column 11, lines 56 - 57) for the controller (2) of an electrical machine (1) having a rotor (102) and at least one electrically energisable phase winding (103A - 103L), the control map comprising a predetermined advance angle profile representing energisation of the phase winding with respect to angular position of the rotor over a range of rotor speeds (Fig.8), and an angle correction factor ( $\triangle x$ ) to be applied to a predetermined portion (x) of the advance angle profile.

Since independent claims 8 and 9 disclose only method steps corresponding to the feature of claim 1, the same reasoning as given for claim 1 will apply mutatis mutandis.

Therefore claims 8 and 9 also do not meet the requirements of the PCT in respect of novelty (Article 33(2) and (3) PCT).

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (SEPARATE SHEET)

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4) Dependent claims 2-7, 10-20 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

Document D1 discloses the features of dependent claims 2, 3, 7, 9, 11 - 13 and 15 - 20 (cf. paragraphs [0044] and [0047] - [0055]). Therefore claims 2, 3, 7, 9, 11 - 13 and 15 - 20 are not new in the sense of Article 33 (2) PCT.

The features of dependent claims 4 and 5 have already been employed for the same purpose in a similar control map, see document D2, abstract. It would therefore be obvious to the person skilled in the art, to apply these features with corresponding effect to a control map according to document D1, thereby arriving at a control map according to claims 4 and 5.

The same applies also to claims 6 and 10 vis-à-vis documents D1 and D3 (page 7, lines 29 - 32 and page 8, lines 20 - 24) and to claim 14 vis-à-vis documents D1 and D4 (page 1, lines 39 - 52).